

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Proposed Changes in the Commission's Rules)	
Regarding Human Exposure to)	ET Docket No. 03-137
Radiofrequency Electromagnetic Fields)	

COMMENTS OF THE EMR NETWORK

The EMR Network ("EMRN") responds to the captioned Notice of Proposed Rulemaking, FCC 03-132, released June 26, 2003 ("Notice").¹ For the reasons stated in its 2001 request for the opening of an inquiry on the present Maximum Permissible Exposure ("MPE") limits at Sections 1.1310, 2.1091 and 2.1093 of the Rules, and reinforced in our Application for Review of the dismissal of the request, EMRN believes the Commission is misguided in refusing to "invite comment regarding the exposure limits themselves."²

Nevertheless, we believe some of the proposals in the Notice are moving in a direction of greater safety and support them to the extent discussed below. Yet because the proposals remain based on MPEs that do not account for potential non-thermal effects of radio frequency radiation ("RFR"), EMRN's support must be qualified. Our endorsement, for example, of the common-sense recognition that RFR exposure must be minimized in all directions (Order, ¶¶ 6-8) should

¹ The EMRN is a nonprofit corporation whose mission, in part, is to "enhance local, regional, national, and international efforts to reduce, mitigate, and where possible, eliminate hazardous exposure to EMR." More information may be found at <http://www.emrnetwork.org>.

² Notice, ¶5. The order of the full Commission upholding dismissal of the EMRN's request for an inquiry on revision of the MPEs is under appeal. Order, FCC 03-191, released August 14, 2003; Petition for Review, EMR Network v. FCC, No. 03-1336, U.S. Court of Appeals for the D.C. Circuit, docketed October 3, 2003.

not be construed as acceptance of the current MPE values that produced the recommended spherical separation distances.

Categorical Exclusions

The following proposition strikes us as little more than the codification of common sense in the Commission's rules, and hardly needs gingerly treatment as a "tentative" conclusion:

We tentatively find that the current "height above ground" separation requirement may not be appropriate in all cases since it does not take into account accessible locations that may be adjacent to the transmitting antenna, such as where a tower-mounted antenna is installed next to a building.³

In another formulation that seems correct in principle, the Notice (§11) defines separation distance as

the minimum distance from the radiating structure of the transmitting antenna in any direction to an area that is accessible to a worker or to a member of the general public.

We also agree in general with the suggestion that a "conservative range" (Notice, §9) may be more workable than the flat ceiling of a power level, below which the present exclusions apply. That is, treating power levels of 100 and 999 watts the same in every case, for purposes of a 1000-watt exclusion, may be unsafe because it is inflexible.

We are puzzled, however, by the importance afforded consistency "across services." (Order, §10) Since RF energy absorption is frequency-dependent (Notice, §21), "the same power levels and separation distances should apply" only if the frequencies on which the services operate are close enough not to affect the energy absorption calculations.

³ Notice, §8. Despite the under-inclusiveness of the categorical exclusion rule at Section 1.1307(b), the non-binding guide, OET Bulletin 65, illustrates (at 39) the importance of lateral as well as vertical (or above-ground) separation. <http://www.fcc.gov/oet/info/documents/bulletins>.

Paragraph 12 of the Notice comes down tentatively in favor of “simplicity and practicality” as against “multiple, frequency-dependent separation distances.” But, again, the difficulty arises at the margins, when the power level is, say, 99 watts and the separation distance is exactly 3 meters. Prudence suggests that safety must trump simplicity when risk of harm is at stake. The Notice concedes (§15) that safe separations could be established on a scale instead of a flat limit. Given that the consequence of non-exclusion is nothing more onerous than “routine environmental evaluation” for MPE compliance, we do not believe that scaling of categorical exclusions is too burdensome or complex.

We are dubious about analogizing indoor installations of “micro base stations and similar fixed devices” -- presumably to be found in public places as well as residences -- to mobile handsets for purposes of categorical exclusions. (Notice, §14) It is one thing for a handset user to be conscious of separation distance during an individual call, but quite another for transients in public places (or children in a classroom) to always be sensitive to a 20-centimeter (approximately 8-inch) safe separation distance.

Similarly, we are inclined to require the small amount of extra effort involved in complying with a rule “that categorically excludes antennas that are publicly accessible within the specified distance only outside the main beam” of transmission. (Notice, §16) Where access occurs within a potentially harmful distance, we consider routine evaluation to determine where the main beam lies a small price to pay for the incremental safety. The simple act of making the antenna owner conscious of the boundaries of the main beam is, itself, worthwhile.

SAR Evaluations

We are surprised by the haste of the Commission to gather comment (Notice, §35) on a mere committee adoption of the IEEE, not yet a final recommendation, relaxing the Specific

Absorption Rate ("SAR") standard for the "pinna" of the human ear. We understood revisions to current MPEs to be outside the scope of the Notice. From the layman's perspective, the IEEE appears to be ready to equate the ear to an arm or a leg (as an "extremity"). Given the use of cellular phones at the ear, we do not understand the analogy, but we are prepared to read the SCC28 adoption and to comment on reply. We also are considering additional comments about MPEs, since the Notice puts the subject in play.

If SAR values are added to Section 1.1310 (Notice, ¶44), these should not be an escape from "MPE values [that] may be overly conservative." SAR should only be used where it results in greater safety than the MPE measurement. In our view of "prudent avoidance" of RFR risks, overly conservative equals good.

Occupational Use and Warning Labels

In general, we support the thrust for additional disclosure of possible RFR hazards to workers. (Notice, ¶¶38, 39) The same goes for labels on consumer products. (Notice, ¶¶41-43)

Conclusion

As discussed above, many of the proposals in the Notice are directed toward greater prudence in RFR exposure, and we support that thrust even as we disagree with the present MPEs based exclusively on risk of thermal harm from RFR. We will have more to say on reply.

Respectfully submitted,

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